



Task Order (TO)

47QFCA20F0024

for

Africa AOR Integrated Logistics Support (ILS)

Supporting

**Remote Sensing Center (RSC)
National Capital Region (NCR)**

Issued to:

Alion Science and Technology Corporation

Under contract GS00Q14OADU106

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**GSA's One Acquisition Solution for Integrated Services (OASIA) Pool One
Indefinite Delivery Indefinite Quantity (IDIQ) Contract**

Issued by:

**The Federal Systems Integration and Management Center (FEDSIM)
1800 F Street, NW (QF0B)
Washington, D.C. 20405**

MODIFICATION P00002

Date: June 24, 2020

This Task Order is solicited, and will be awarded and executed in accordance with FAR 16.505.

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SECTION C – PERFORMANCE WORK STATEMENT

C.1 BACKGROUND

The Department of Defense (DoD), Non-DoD Federal Departments and Agencies, and the Intelligence Community needs to mitigate asymmetric threats in support of tactical elements deployed in various Areas of Responsibility (AOR). This includes projects to develop, demonstrate and evaluate platform cyber systems, weapon systems and communication mission systems used for information collection and dissemination in order to detect, identify, assess, exploit or neutralize threats to the U.S. and its interests. The threats are not limited to counterintelligence, but include cyberwarfare, cyberterrorism and protection of critical infrastructure. Many of these projects require an extremely fast turn-around to meet mission schedules and objectives and include requirements for logistics management and integration services for the US Government at Continental United States (CONUS) and Outside the Continental United States (OCONUS) locations.

USG personnel are currently maintaining an advisory role to support African Partner Nation Forces (PNFs) in their objective to fight terrorism. Given the limited resources and limited infrastructure, logistics integration is required to achieve optimal, effective mission support to regional commanders. Due to the nature of the threat, the operating environment transforms frequently which furthers the complexity of the solution. This effort has been established to ensure that regional commanders have full situational awareness of logistics assets and they are used to their full potential in the mission planning and execution phases.

C.2 OBJECTIVE AND SCOPE

C.2.1 OBJECTIVE

This performance work statement (PWS) documents the requirements for contractor support in meeting mission requirements to successfully enhance, design, prototype, integrate, test, evaluate, and demonstrate innovative capabilities. Live, Virtual and Constructive simulation will be used throughout the experimentation and demonstration process to fully evaluate the technologies under demonstration and evaluation in both controlled and operational relevant environments.

The primary objective of this contract is to provide increased capabilities to the in-theater operators. Key to accomplishing this tasking is the ability to synchronize research, development, testing and engineering efforts and to develop, improve and promulgate capabilities in support of operational customers by leveraging the combined power of academic expertise, operational experience, and technical capabilities. Overall this effort is to support Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)

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Information Technology (IT), IT advanced concept development and the analysis, testing, development, and integration of equipment, operations, and training.

C.2.2 SCOPE

The scope of this effort is to provide planning, research, analysis, capability development, materiel, prototyping, proof of concept demonstrations, system and software engineering and integration, system testing and evaluation, system deployment, system security, system training support and logistics support.

The contractor shall design and develop concept demonstrators; develop processes and procedures; analyze future Command, Control, Computers, Communications, Intelligence, Surveillance, and Reconnaissance (C4ISR) system capabilities and technologies; develop advanced concept designs; provide system integration and manned and unmanned airborne operations, logistics, and sustainment for rapid responses to active and emerging threats.

The contractor shall use a rapid response methodology (2-24 months) consisting of rapid development, rapid experimentation, rapid installation, and rapid acquisition of mission systems, subsystems, technical support, and spares. Technical support shall also include, but not be limited to, systems configurations, flight clearances, operational validations, trade or other studies, mockup assessments, advisory panels and working groups, laboratory support, and field test support.

The contractor shall provide functional allocation synthesis, laboratory and field facility test procedures, operational systems performance analysis, and required subsequent sustainment necessary to transform an operational need into an effective, affordable and operable system.

The contractor shall also provide logistics management and integration services as performed for the US Government (USG) at OCONUS locations interfacing with regional commands to provide: Rotary Wing (RW) and Fixed Wing (FW) Airlift Services, Line Haul (LH), and Petroleum Oil Lubricants (POL) supply for both US and Partner Nation Forces (PNFs). The contractor shall provide situational awareness and gap analysis to support mission planning and execution. The contractor shall manage all aspects of logistics for these services to include training, routine maintenance of equipment and infrastructure and life support functions for mission staff.

The contractor will also provide Medical Evacuation (MEDEVAC) and Casualty Evacuation (CASEVAC) services as requested by the Government in support of deployed operations.

Specific tasks under the AFRICA AOR ILS TO include:

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- a. Task 1 - Program Management
- b. Task 2 - Systems Engineering
- c. Task 3 - Hardware Design and Development
- d. Task 4 - Integration and Testing
- e. Task 5 - Cyber Security/Information Assurance (IA)
- f. Task 6 - Training
- g. Task 7 - Logistics

See Attachment J2 for Contemplated Lines of Efforts

C.2.3 NON-PERSONAL SERVICES STATEMENT

Contractor employees performing services under this PWS shall be controlled, directed and supervised at all times by management personnel of the contractor. Contractor management shall ensure that employees properly comply with the performance work standards outlined in this Performance Work Statement. Contractor employees shall perform their duties independent of, and without supervision of, any government official. The contractor Program Manager and their designated Project Lead's will receive assignments from the Government POC's or their designated POC's, and relay the specific tasks to the contractor's support staff. The tasks, duties, and responsibilities set forth in this PWS may not be interpreted or implemented in any manner that results in any contractor employee creating or modifying Federal Policy, obligating the appropriated funds of the United States Government, overseeing the work of Federal employees, providing direct personal services to any Federal employee, or otherwise violating the prohibitions set forth in Part 7.5 and 37.1 of the Federal Acquisition Regulation (FAR).

C.3 TASKS

C.3.1 TASK 1 – PROGRAM MANAGEMENT

The contractor shall provide program management support under this contract. This includes the management and oversight of all activities performed by contractor personnel, including subcontractors, to satisfy the requirements identified in this PWS. The contractor shall identify, by name, a Program Manager (PM), who shall provide management, direction, administration, quality control, and leadership of the execution of this Contract. The PM is designated as key personnel, and therefore cannot be replaced without the prior written consent of the Contracting Officer. The contractor shall schedule and facilitate meetings, and provide deliverables in accordance with (IAW) Deliverables Table, Section 4.1.

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At time of proposal, the contractor shall have successfully completed Capability Maturity Model Integration (CMMI, DEV), Level III assessment. This certification is required for the team as an integrated whole. Equivalent certification(s) will be considered.

C.3.1.1 SUBTASK 1 - POST-AWARD ORIENTATION

The contractor shall schedule, coordinate, and host a Post-Award Orientation within seven calendar days of contract award. The meeting will provide an introduction between the contractor personnel and Government personnel who will be involved with the contract. At a minimum, the attendees shall include contractor personnel, to include the contractor PM, contractor key points of contact for each major task, Government user representatives (Technical Points of Contact [TPOCs]), other relevant Government personnel, the (GSA) Contracting Officer (CO), the (GSA) Contract Specialist, the GSA PM, the Contracting Officer Representative (COR), and the Alternate COR (ACOR).

The purpose of the Post-Award Orientation is to:

- 1) Discuss any unique characteristics of the requirement(s);
- 2) Identify stakeholders' roles and responsibilities;
- 3) Review the ISR System Delivery Plan; and
- 4) Establish a common understanding of cost, schedule, and performance expectations (Deliverable 4.1.1, Post Award Brief Slides and Minutes with Attendees List).

C.3.1.2 SUBTASK 2 - COORDINATE A PROJECT KICK-OFF MEETING

The contractor shall schedule, coordinate, and host a Project Kick-Off Meeting within 30 days at the location approved by the Government. The meeting will provide an introduction between the contractor personnel and Government personnel who will be involved with the task order. The meeting will provide the opportunity to discuss technical, management, and security issues, and travel authorization and reporting procedures. At a minimum, the attendees shall include Key contractor Personnel, representatives from the RSC-NCR and RSC-NCR customer directorates, other relevant Government personnel, and GSA FAS PM.

At least three days prior to the Kick-Off Meeting, the contractor shall provide a Kick-Off Meeting Agenda for review and approval by the GSA FAS PM and the RSC-NCR Technical Point of Contact (TPOC) prior to finalizing. The agenda shall include, at a minimum, the following topics/deliverables:

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- a. Points of Contact (POCs) for all parties
- b. Program management discussion including schedule, tasks, etc.
- c. Personnel discussion (i.e., roles and responsibilities and lines of communication between contractor and Government)
- d. Staffing Plan and status
- e. ISR System Delivery Plan and discussion
- f. Security discussion and requirements (i.e., building access, badges, Common Access Cards (CACs)
- g. Invoicing requirements

The Government will provide the contractor with the number of Government participants for the Kick-Off Meeting and the contractor shall provide sufficient copies of the presentation for all present.

The contractor shall provide a Kick-Off Meeting Minutes Report documenting the Kick-Off Meeting discussion and capturing any action items.

C.3.1.3 SUBTASK 3 - BASELINE QUALITY CONTROL PLAN (QCP)

The contractor shall provide a QCP. The contractor shall periodically update the QCP, as changes in program processes are identified (Deliverable 4.1.9).

Within the QCP, the contractor shall identify its approach for providing quality control in meeting the requirements of the TO. The contractor's QCP shall describe its quality control methodology for accomplishing TO performance expectations and objectives. The contractor shall fully discuss its validated processes and procedures that provide high quality performance for each Task Area. The QCP shall describe how the processes integrate with the Government's requirements.

C.3.1.4 SUBTASK 4 - ISR SYSTEM DELIVERY PLAN

The contractor shall review, and revise as required, the proposed ISR System Delivery Plan no later than (NLT) five days after award.

The ISR System Delivery Plan shall address how the contractor plans to either deploy their existing ISR asset to the Horn of Africa, or integrate/certify/deploy their proposed platform. The contractor shall also identify any actions the offeror assumes to be the responsibility of the Government.

If proposing an ISR platform that is to be certified, discuss the proposed process to expedite certification, including key milestones.

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For manned and unmanned airborne ISR, the contractor shall provide the following:

- Integrated ISR capability on aircraft no later than four months after award; and
- Certified integrated capability and deployed operations and support team deployed to theater NLT 12 months after award.
- Though utilization of GFE (i.e. Tracer) is not a requirement to satisfy this contract, if requested by the contractor, the Government will provide this GFE within 30 days of request.

C.3.1.5 SUBTASK 5 - PROGRAM MANAGEMENT PLAN

The contractor shall provide a Program Management Plan (PMP) within sixty (60) days after contract award. The Program Management Plan will provide a Work Breakdown Structure (to level 3), and resource-loaded schedule that outlines the steps that will be taken, the timeline to completion, and any associated risks with execution of the order. The PMP will be updated as required; each Project resulting from a Project Requirements Document shall have its own PMP (to be developed and managed by the contractor). The update shall specify estimated project start and stop dates as well as a risk mitigation plan and an expenditure plan aligned to key milestones, to include any anticipated Other Direct Costs (ODCs). The update should highlight any interdependencies within the task schedules and among other active projects. Upon acceptance and approval by the Government, the contractor will meet the cost, schedule and forecasted delivery date of all deliverables by taking all reasonable measures to fulfill the requirement (Deliverable 4.1.2: Program Management Plan (PMP)) and will report monthly status updates in the Monthly Status Report (MSR).

C.3.1.6 SUBTASK 6 - MONTHLY STATUS REPORT (MSR)

The contractor shall submit a Monthly Status Report. The MSR will provide detailed status for the tasks within the PMP as well as capture an overall status of the order. The MSR reports cost, schedule, and performance against PMP requirements and identifies status of funding, planned versus actual expenditures per task, total monthly and cumulative ODC expenditures, status of known risks, risk mitigation efforts, deliverables funded and date they were funded, technical progress made and schedule status per deliverable, the titles, dates and number(s) of deliverables completed, and the deliverables scheduled to be delivered during the upcoming month. Specific MSR format and content will be mutually agreed upon by the contractor and ACOR; this should be established no later than the Post-Award Orientation. (Deliverable 4.1.3: Monthly Status Report).

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The contractor shall develop and provide an MSR (using Microsoft (MS) Office Suite applications, by the tenth of each month via electronic mail to the Technical Point of Contact (TPOC), the COR, CO, and GSA PM.

C.3.1.7 SUBTASK 7 - TRIP REPORT

The Government will identify the need for a Trip Report (**Section F, Deliverable 4.1.4**) when a Travel Authorization Request (TAR) (**Section J, Attachment J10**) is submitted. The contractor shall keep a summary of all long-distance travel including, but not limited to, the name of the employee, location of travel, duration of trip, and Point of Contact (POC) at travel location. Trip Reports shall also contain Government approval authority, total cost of the trip, a detailed description of the purpose of the trip, and any knowledge gained. At a minimum, Trip Reports shall be prepared with the information provided in **Section J, Attachment J11**.

C.3.1.8 SUBTASK 8 - DEVELOP AND MAINTAIN DASHBOARDS

The contractor shall develop an overarching Summary Dashboard that provides project details to include client name, client POC, task name, abbreviated work description, start date, end date, adjusted end date, amount funded, amount invoiced, burn rate, and other pertinent information. This Summary Dashboard shall be available only to the TPOC, COR, GSA PM, and CO.

In addition, the data that feeds the Summary Dashboard shall be maintained at the project level as Individual Dashboards. Individual Task Dashboards shall be available only to the Project stakeholder, the TPOC, COR, GSA PM and CO. The contractor shall update Individual Task Dashboards daily.

Deliverables shall be identified in the Summary Dashboard, in Individual Task Dashboards for each project.

C.3.1.9 SUBTASK 9 - TRANSITION-OUT PLAN

The Transition-Out Plan shall facilitate the accomplishment of a seamless transition from the incumbent to an incoming contractor/Government personnel, to be completed by the expiration of this contract. The contractor shall provide a Transition-Out Plan (Deliverable 4.1.5: Transition-Out Plan): no later than (NLT) 60 calendar days prior to expiration of the contract.

The contractor shall identify how it will coordinate with the incoming contractor and/or Government personnel to transfer knowledge regarding all aspects of the current contract to include (but not limited to) the following:

- a. Project management processes.

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- b. Points of contact.
- c. Location of technical and project management documentation.
- d. Status of ongoing technical initiatives.
- e. Appropriate contractor-to-contractor coordination to ensure a seamless transition.
- f. Schedules and milestones.
- g. Actions required of the Government.
- h. Establish and maintain effective communication with the incoming contractor/Government personnel for the period of the transition via weekly status meetings.

C.3.1.10 SUBTASK 10 - IN PROGRESS REVIEW (IPR)

The contractor shall conduct quarterly IPRs. The contractor shall prepare and deliver an agenda (Deliverable 4.1.6: Quarterly Program/Project Management Review) one week prior to the IPR meeting to the TPOC and COR. The IPR shall provide stakeholders with an overview of all tasks, issues revolving around the tasks, and financial information.

C.3.1.11 SUBTASK 11 - FINAL TECHNICAL REPORT

The contractor shall provide technical reports IAW the contract section 4.0 Deliverables and Reporting Requirements.

1. Project Final Report

Once the closing process is completed, a post-project review shall be conducted resulting in a written report (Deliverable 4.1.7: Final Technical Report) outlining:

- a. User acceptance test results
- b. Success factors and how they were met
- c. Financial data
- d. Recommendations to future project managers
- e. Lessons Learned:
 - Did the delivered product meet the specified requirements and goals of the project?
 - Were cost budgets met?
 - Was the schedule met?
 - Were risks identified and mitigated?
 - Did the project management methodology work?
 - What could be done to improve the process?

The project senior sponsor, through the COR, will sign-off on the final Project Report acceptance.

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2. Contract Final Report

Prior to expiration of the Period of Performance (PoP), the contractor shall submit a Final Technical Report (FTR) (Deliverable 4.1.8: Final TO Technical Report). The FTR will include specific background information, objectives, assumptions, specific data collected, conclusions, analyses conducted, and recommendations. Each report will be delivered to the ACOR and COR.

C.3.1.12 SUBTASK 12 - ACCOUNTING FOR CONTRACTOR MANPOWER REPORTING

The contractor shall report ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for the DoD via a secure data collection site: the Enterprise Contractor Manpower Reporting Application (ECMRA). The contractor shall completely fill in all required data fields using the following web address: <http://www.ecmra.mil/>.

Reporting inputs will be for the labor executed during the period of performance during each Government Fiscal Year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. Contractors may direct questions to the support desk at: <http://www.ecmra.mil/>.

Contractors may use Extensible Markup Language (XML) data transfer to the database server or fill in the fields on the website. The XML direct transfer is a format for transferring files from a contractor's systems to the secure web site without the need for separate data entries for each required data element at the website. The specific formats for the XML direct transfer may be downloaded from the web.

C.3.1.13 SUBTASK 13 – MONTHLY STATUS MEETING

The contractor shall convene a Monthly Status Meeting with the TPOC, FEDSIM COR, and other Government stakeholders (Section F, Deliverable 4.1.11). The purpose of this monthly meeting is to ensure all stakeholders are informed of the monthly activities and the MSR, provide opportunities to identify other activities and establish priorities, and coordinate resolution of identified problems or opportunities. The contractor shall provide meeting minutes on the monthly status meeting (Section F, Deliverable 4.1.12).

C.3.1.14 SUBTASK 14 – PREPARE MEETING MINUTES

The contractor shall submit Meeting Minutes (Section F, Deliverable 4.1.12), as requested by the TPOC and/or FEDSIM COR, to document results of meetings. The meeting minutes shall include the following information:

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- a. Meeting attendees and their contact information – at a minimum, identify organizations represented.
- b. Meeting dates.
- c. Meeting location.
- d. Meeting agenda.
- e. Meeting purpose.
- f. Meeting outcome.
- g. Action items.

C.3.1.15 SUBTASK 15 – PREPARE AND UPDATE TECHNICAL DIRECTION PLANS (TDPs)

TDPs are a means of providing technical guidance on contractual requirements, within the context of the TO. The contractor shall prepare and update TDPs in response to a FEDSIM Contracting Officer (CO) -approved TDL in accordance with Section H.25. The contractor shall tailor the requirements for each TDP. The TDP is an evolutionary document and the contractor shall work from the latest Government-approved version of the TDP, (Section F, Deliverable 4.1.13). The TDP shall include:

- a. Project overview.
- b. Project cost estimate (Rough Order of Magnitude (ROM)).
- c. Master Equipment List (MEL)/Bill of Materials (if applicable).
- d. Project schedule including milestones, tasks, and subtasks required in this project.
- e. Project risks and mitigations.
- f. Project staff and resources.
- g. Performance criteria.
- h. Travel considerations.
- i. Project work products deliverables.
- j. Security considerations.
- k. Provide for an overall WBS.
- l. Project transition.
- m. TDP customer feedback participation.

The contractor shall host a Project Kick-Off Meeting for each approved TDL called the Technical Direction Kickoff (TDK) meeting (Section F, Deliverable 4.1.14) and shall provide a meeting agenda and meeting minutes.

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C.3.2 TASK 2 - SYSTEMS ENGINEERING

C.3.2.1 SUBTASK 1 - SYSTEMS ENGINEERING SUPPORT

The contractor shall provide systems engineering support to C4ISR and other initiatives, including development of systematic situation analyses, trade-off analyses, problem and potential problem analysis, decision analyses, risk analyses, tactics analyses, mission analyses, and strategy analyses associated with systems engineering and integration (Deliverable 4.2.1: Analysis Report).

The contractor shall develop multiple rapid reaction technologies CONOPS and technical approaches (Deliverable 4.2.2: Technology CONOPS Report) that will be evaluated by the Government for operational testing. CONOPS shall address specific requirements; specifications, Government Furnished Equipment, Contractor-Furnished Equipment (CFE), Government-Off-The-Shelf (GOTS) software, Commercial-Off-The-Shelf (COTS) software, and locally fabricated integration components.

The contractor shall:

- a. Provide support to C4ISR and Big Cloud system technology insertion initiatives, including transfer and transition of existing and emerging technologies.
- b. Provide human systems integration analysis and design solutions for ISR systems.
- c. Assist the Government with the evaluation of COTS and GOTS hardware and software effectiveness.
- d. Conduct data analysis and provide technical recommendations for the enhancement of strategic concept development.
- e. Provide an analysis of all CONOPS and recommendations as to the most viable concepts.
- f. For each approved CONOPS, demonstrate and evaluate the rapid reaction technologies proposed.
- g. Provide expert level analysis and assessment of ISR and command and control systems and other emerging technical efforts.
- h. Develop SOPs and processes associated with system operations and mission areas leveraging knowledge management and best practices.
- i. Identify, exploit and manipulate current and emerging technologies.

C.3.2.2 SUBTASK 2 - RESEARCH AND ANALYSIS

The contractor shall provide research and analysis support to include characterizing and evaluating emerging ISR technologies by developing custom identification, collection,
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interpretation and evaluation schemes necessary to assess systems in areas such as Cloud, Big Data, mobility and processing / exploitation / dissemination (Deliverable 4.2.1: Analysis Report).

The contractor shall:

- a. Analyze and provide recommendations on the design and development of IT-based ISR systems.
- b. Analyze system support requirements and provide a report to the Government that documents that analysis and findings.
- c. Research and analyze software anomalies and update, integrate, test, and deliver software corrections so that legacy IT-based capabilities are not degraded.
- d. Ensure that the current software is capable of functioning with legacy capabilities currently processed by the government.
- e. Provide research and analysis in support of the development of ISR technologies directly responsive to special warfare related ISR requirements.
- f. Conduct research and analysis of current and future ISR capabilities, requirements, deployments and integration; ISR advanced concepts and technologies; system and subsystem platform integration; application of applied physics; analysis of electrical designs; analysis of mechanical concepts; analysis of acoustic noise and sonar systems; analysis of illumination, detection, characterization and classification of targets.
- g. Provide research and analysis of actionable cyber threats and intelligence on emerging cyber threats requiring a rapid response
- h. Provide research and analysis supporting the development of advanced Mission Management, data Processing and Fusion tools and software that utilize concepts such as Machine Learning and Artificial Intelligence to gain tactical advantage and provide rapid detection, classification and prosecution of contact of interests based on multiple ingested data source both on and off the aircraft platform.
- i. Conduct research and analysis in support of the development of biometrics-based ISR systems, subsystems, associated equipment and programs.
- j. Provide research and analysis supporting integration of biometric technologies to support the ISR mission and assist with rapid detection, classification and prosecution of contact of interests based on biometric data.
- k. Provide research and analysis in the understanding, development and maturation of Artificial Intelligence (AI), Machine Learning (ML) and Deep Learning (DL) technologies and how they may be able to assist in the Processing, Exploitation and Dissemination (PED) of the volumes of data captured by ISR assets every day.
- l. Provide research and analysis on algorithm techniques to reduce human workload and improved ISR capability and improve mission critical analysis of ISR data.

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C.3.3 TASK 3 - HARDWARE DESIGN AND DEVELOPMENT

The contractor shall develop, review, research, or support designs that could be proposed by the Government or developed for new items and for improvements to existing items as required. Support may include design engineering, hardware conceptualization, prototyping, and review of overall product while understanding supportability requirements. Develop and fabricate prototypes of engineering designs; modify the original designs as required; identify requirements for and complete validation testing of engineering designs and prepare technical data packages. Prepare, review or support design of new items and improvements to existing items as required. Unless otherwise requested by the Government, all designs and design changes will be documented in their as-built configuration and presented as developmental (Level II) or production (Level III) drawings and specifications (Deliverable 4.3.1: Hardware Design Evaluation Reports; Deliverable 4.3.2: Technical Data Packages; Deliverable 4.3.3: Prototypes).

The contractor shall utilize rapid prototyping techniques that leverage emerging technologies and provide the facilities and equipment to develop quick-reaction proof-of-concept prototypes of systems, subsystems, and components. Rapid prototyping techniques and facilities will be used to develop systems, subsystems, circuit cards, and assemblies, including any software, firmware, and algorithms required for their operation (Deliverable 4.3.3: Prototypes, Deliverable 4.3.4: Prototype Design Package).

The contractor shall:

- a. Research, analyze, design, develop, fabricate, integrate, test, deliver and install IT-based test capability software.
- b. Develop and modify sensor data fusion software (Deliverable 4.3.5: Software Design Report). This software is used to create database applications, as well as accommodate computer hardware and operating system changes. The software supports database management software, data analysis software and database content exchange between systems. The data fusion software acts as a bridge between technology A and technology B.
- c. Develop software for image and video manipulation functions, image and video enhancement tools and image and video display improvement methods.
- d. Develop and modify digital imagery and video analysis software in accordance with standards required for interoperability.
- e. Prototyping ISR sensors, communications, cyber and onboard front-end processing systems.
- f. Integration of Commercial Off-the-Shelf (COTS) and Government-provided equipment for compatibility with the host platform and secured availability requirements.
- g. Repackaging equipment to meet platform physical constraints.

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- h. Environmental hardening of COTS and Government equipment for the deployment environment.
- i. Integrating diverse Government sensors and collection equipment to perform a new mission.

C.3.4 TASK 4 – INTEGRATION AND TESTING

The contractor shall identify requirements and document data to ensure system, subsystem, software, equipment and component compatibility; identify and provide recommended solutions to interface problems; review and monitor system tolerances; perform system tests to assess performance, safety, operability, reliability and maintainability; and review engineering change proposals for impact on system interfaces IAW Government Furnished Information (GFI), as required (Deliverable 4.4.1: Integration Plan).

The Contractor shall develop and perform Test and Evaluation (T&E) and Verification and Validation (V&V) events, including operational demonstrations, for new and emerging sensor technologies. Analyze the technical data required for the development of Technical Requirements Documents (TRD) and verify that the supplied data is sufficient using TRD Checklists. Test plans, test procedures, test beds test sets and reports will be developed as part of these T&E events (Deliverable 4.4.2: T&E and V&V Documentation).

Test plans and procedures for such events include:

- Test and Evaluation Master Plans (TEMP)
- System qualification and first-article testing
- Qualification test plans
- Production acceptance test
- Evaluation Plans to include Production Acceptance Test and Evaluation (PAT&E)
- Quality Evaluation (surveillance) test plans
- Operation evaluation (OPVAL)
- Flight Clearances both DoD (e.g., Air Force, Army, Navy) and FAA Airworthiness certifications for airborne platforms

(Deliverable 4.4.2: T&E and V&V Documentation).

The contractor shall conduct T&E and V&V for systems, subsystems, and components specified by the Government. This shall include providing all required support, to include test plans and procedures, data collection and analyses, and written test reports to document all test activities and results. Any special equipment required for data collection will be provided as GFE. Submit test and evaluation plans, data, analyses of data, and test reports, along with rationales, to the

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Government as specified by the Government (Deliverable 4.4.2: T&E and V&V Documentation).

The contractor shall provide integration, operations, and technical support of ISR systems, subsystems including automated intelligence correlation processing installed on platforms or in control stations that analyzes data from radars, electromagnetic spectrum sensors, video cameras and other sources. Integration support includes the integration of IT and communication subsystem/sensors with models, software, hardware, firmware, COTS items, integrated systems and subsystems. Operations support includes interfacing directly with operational customers to provide technical support, on the use of specialized ISR equipment. Technical support includes on-site maintenance, repair, and operation of ISR equipment developed and fielded.

C.3.5 TASK 5 - CYBER SECURITY / INFORMATION ASSURANCE (IA)

The contractor shall identify requirements for integration of cybersecurity architecture and technical patches in maintaining and development of sensor suite and provide technical analysis and recommendations for future architecture requirements. The contractor shall provide recommendations to the Government for updating and revising architecture designs to accommodate changing requirements, emerging technology, and results of vulnerability assessments (Deliverable 4.5.2: Architecture Analysis Results and Alternatives).

The contractor shall provide information assurance support IAW JAFAN 6/3 and ICD 503-Intelligence Community Information Technology systems security: Risk management certification and accreditation, and provide IA assistance to units involved in classified activities, establish and maintain accreditation for all information systems operating within a classified environment, and develop and maintain system security plans outlining security operating procedures.

The contractor shall:

- a. Assist the unit IA manager in developing sanitation and secure data extraction programs for all media, security incident cleanup plans, system certification testing plans, vulnerability testing, and protection measure procedures.
- b. Maintain continuous control and accountability of all IT hardware and software entered into and removed from classified facilities.
- c. Provide day-to-day security management and oversight for classified activities, including sensitive documents, data and equipment.
- d. Provide system vulnerability assessment reports (Deliverable 4.5.1: System Vulnerability Assessment Reports)

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- e. Support the design, development, operation, maintenance, and upgrades of government cyber lab capability.
- f. Conduct Computer Network Defense (CND) of classified and unclassified networks.

The contractor shall conduct assessments of the current system monitoring capabilities, during and after simulated electronic systems/cyber-attacks. The contractor shall define cyber requirements and develop recommendations regarding risk mitigation solutions and contingency plans. The Contractor shall provide recommendations for system improvements, integration and implementation of software, hardware and services capabilities including, for example, onboard and off board sensor networks, messaging, traffic, and cross-domain solutions. (Deliverable 4.5.3: Threat and Post threat Assessment Plan; Deliverable 4.5.4: Risk Assessment Recommendations).

C.3.6 TASK 6 - TRAINING

The contractor shall develop, coordinate and provide training for demonstrations, exercises, operational systems, mission, and tactics training procedures (TTPS) (Deliverable 4.6.2 Training Materials). Operational systems training shall address operator / maintainer interfaces with the system, including normal and degraded modes of operation. Mission training shall include the operating environment, threats, political concerns and special operating considerations. Starting six months after implementing a training program, and repeating every six months thereafter, the contractor shall objectively assess the efficacy of operational training plans, materials and curricula (Deliverable 4.6.3: Training Report), and provide the results of those assessments to the COR, GSA PM and CO. The contractor provided training shall include training to tactical combat advisors both USG and PNFs.

The contractor shall:

- a. Provide systems familiarization training in both a classroom environment and field environment that will enable users to operate the hardware and software delivered.
- b. Develop and provide classrooms, applicable manuals and tools related to the training (Deliverable 4.20 Training Materials).
- c. Deliver all modes of training – classroom, on-the-job and distance learning – both inside the CONUS and OCONUS, at both government and contractor sites.
- d. In support of cyber security projects provide CND training for analysts, including development of instruction and briefing material IAW DI-MISC-80508.
- e. Provide software assurance training and C&A training for developers. Training includes development of instruction and briefing material.

C.3.7 TASK 7 - OPERATIONS SUPPORT (LOGISTICS)

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The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, limited security and other items and non-personal services necessary to perform safe routine and emergency RW and FW transportation logistics services, and FW ISR services, throughout the AOR.

At a minimum, the contractor shall have identified, available clean (slick) RW, FW, and FW ISR CONUS-based (or within Africa AOR) assets no later than 30 days after award. TDLs issued after-award may specify different deployment timelines.

Contractor shall provide RW aircraft and FW aircraft and shall maintain an Operational Readiness Rate (ORR) of 80%. Though subject to change, based on baseline, surge, and changing operational conditions, the annual, estimated requirements are as follows:

Category	Amount (s)	Notes
RW Transport	1,200 blade hours	Medium helicopter (e.g., B214)
FW Transport	600 blade hour	Medium Stol Aircraft (e.g., CASA212)
FW ISR (mnnned - threshold / unmanned - TBR/objective)	8,600 blade hours	FOPEN, EO/IR FMV, SIGINT/COMINT, LIDAR
MEDEVAC/CASEVAC	480 blade hours	

The following aircraft specifications and constraints are currently required for the projects included in this contract. Specifics, as subject to baseline, surge, and changing operational conditions will be outlined in each project TDL.

RW Transport:

The Contractor will have the capability and proficiency to fly and land RW aircraft in the jungle environment. This will include takeoff and landing on small landing zones (including in triple canopy jungle) and rapidly changing weather conditions.

The Contractor must have an exemption waiver in coordination with local governments, if necessary, to the carriage of weapons regulation ICAO Annex 18. Each aircraft must be able to carry to the following:

- Light (300NM Range, 13 Pax/3,000 lbs.)
- Med (500NM Range, 18 Pax/5,000 lbs.)

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The internal cargo may be any combination of personnel and cargo not to exceed 3,000/5,000 lbs. for each aircraft.

The Contractor shall have the ability to conduct re-supply while at a hover (i.e., pushing out a small pallet or large bag [24"x36"x42"; about 500 lbs.]) consisting of supplies and equipment.

The Contractor shall have the ability to conduct sling load re-supply.

Per person estimate is based on each person weighing 200 lbs. each, to include their personnel protective gear and their weapons with basic ammo load.

The Contractor shall perform both scheduled and unscheduled maintenance. The Contractor will provide all parts, labor, and expertise necessary to complete required maintenance tasks. The Contractor shall provide a timetable for scheduled maintenance and an estimated completion time for unscheduled maintenance.

The Contractor shall, where possible, utilize assets already in the AOR to reduce mobilization timelines and costs.

Every aircraft shall be certified as airworthy by trained and certified mechanics for that specific airframe. Airworthy certificates shall be made available to Contractor and/or the Government upon request. Preventive Maintenance service schedules for aircraft shall conform to manufacturers recommended servicing intervals. The USG is entitled to perform an independent assessment of the condition of any contract aircraft at any time. Contractor and/or the Government sponsor may also require that an independent assessment of any aircraft used in performance on this contract be conducted as soon as practicable, and at Contractor expense.

All passenger and cargo doors used for on-loading and off-loading of passengers, baggage, and cargo aboard Contractor aircraft shall be equipped with a safety chest harness. The safety chest harness shall be in place when the cabin or cargo door is open except when actually on-loading or off-loading passengers/cargo or when loading stairs are positioned.

FW Transport:

Each Contractor aircraft must have the capability to take off and land on the following specifications:

- Light (≤2400ft, 500NM Range, 6 Pax/2000lbs)
- Med (≤3500ft, 1000NM Range, 12 Pax/4000lbs)
- Large (≤5000ft, 1300NM Range, 20 Pax/14000lbs)

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Contractor aircraft will have the capability and proficiency to operate onto surfaces as well as concrete and asphalt under Instrument Flight Rules (IFRs), where instrument approaches are available, and Visual Flight Rules (VFRs).

The Contractor must have an exemption waiver in coordination with local governments, if necessary, to the carriage of weapons regulation International Civil Aviation Organization (ICAO) Annex 18.

Aircraft must have the capability of transporting a load of 2,000 lbs. or greater. The internal cargo may be any combination of personnel and cargo not to exceed 2,000 lbs. for each aircraft (3,000 lbs. desired).

Every aircraft shall be certified as airworthy by trained and certified mechanics for that specific airframe. Airworthy certificates shall be made available to Contractor and/or the USG upon request. Preventive maintenance service schedules for aircraft shall conform to manufacturers recommended servicing intervals. The USG is entitled to perform an independent assessment of the condition of any contract aircraft at any time. Contractor and/or the USG sponsor may also require that an independent assessment of any aircraft used in performance on this contract be conducted as soon as practicable, and at Contractor expense.

In accordance with Federal Aviation Administration Airworthiness Directive 93-07-15, Fire Containment Covers (FCCs) shall be placed on all cargo transported in the Class B cargo compartment of combination aircraft. This Airworthiness Directive also stipulates for Alternate Compliance exempt certain items from the requirement to be covered by FCCs.

All passenger and cargo doors used for on-loading and off-loading of passengers, baggage, and cargo aboard Contractor aircraft shall be equipped with a safety chest harness. The safety chest harness shall be in place when the cabin or cargo door is open except when actually on-loading or off-loading passengers/cargo or when loading stairs are positioned.

FW ISR (Manned):

For a single aircraft, the contractor must satisfy the following specifications. (If multiple aircraft are utilized for mission satisfaction, the mission duration and operating range may be aggregates, if supported by the specific basing location and area of operations.)

- Operating altitude: 15,000 to 45,000 ft Mean Sea Level (MSL)
- Mission duration: 7 hours (unrefueled)
- Operating range (round trip and loiter): 3,000 NM

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- Payload capacity (includes crew & sensor operators): 2,500 lbs

ISR payload calibration may be accomplished in either CONUS, at the contractor's site or at a Government test range, as defined by the specific project TDL. Any calibration that is required to be accomplished at the deployed OCONUS site will be outlined in the specific project TDL.

FW ISR (Unmanned):

FW ISR requirements to be accomplished will be defined in the specific project TDL.

MEDEVAC/CASEVAC:

The contractor shall provide and manage MEDEVAC/CASEVAC services as needed and assigned by USG and stakeholders.

To support MEDEVAC operations, the contractor shall provide contractor medics that are Advance Life Support (ALS) accredited.

MEDEVAC/CASEVAC helicopters shall be NVG configured and be capable of supporting 24/7 operations (24/7 call up, not sustained operations) with a 30-minute response time (notice to lift off).

The Contractor shall provide the capability to transport a minimum of three litter patients for air medical evacuation services. Aircraft shall have hoist capability (minimum 600 pound capacity) with a minimum of 250 feet of usable cable.

Aircraft shall be capable of transporting three patients (200 lbs. each), two medics, one hoist operator and flight crew, 325 Nautical Miles (NM), plus reserves without refueling. Mission will be conducted at 4,000 feet Pressure Altitude (PA) and 20°C.

In the event that the aircraft becomes contaminated with bodily fluids or bio waste during a MEDEVAC/CASEVAC mission, the contractor will decontaminate the aircraft in an approved manner immediately after the affected flight.

At least the primary aircraft shall at max gross weight be capable of 110 kts. at 4,000 feet and 20°C.

Helicopters and crews shall have the capability to perform air MEDEVAC/CASEVAC services at 4,000 feet mean sea level and to take off and land at 7,500 feet density altitude, and a temperature range of 23.8°C to 40°C.

LINE HAUL / POL:

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The contractor shall provide LH vehicles for cargo in support of PNF requirements. The contractor will be responsible for LH cargo transportation only, not the purchase of cargo. Though subject to change, based on baseline, surge, and changing operational conditions, the annual, estimated requirements are as follows:

Category	Amount(s)	Notes
Gry Goods/Cargo	600 metric tons	Rough terrain, high threat, austere conditions
POL	960k liters	Rough terrain, high threat, austere conditions

The contractor shall provide and transport POL to support Foreign Internal Defense initiatives. These POL products shall include, but not be limited to diesel, gasoline (petroleum), engine oils and lubricants, coolants, greases, brake fluids, anti-rusts, and other POL products as required. POL shall be purchased by the contractor for USG and PNF. Though subject to change, based on baseline, surge, and changing operational conditions, the annual, estimated requirements are as follows:

Category	Amount(s)	Notes
Diesel/AGO	660,000 liters	
Petroleum/PMS	52,800 liters	
Jet A-1	60,000 liters	
Lubricants	60,00 liters	Plus required containers

The contractor shall make use of logistics assets already in the AOR to reduce mobilization timelines and costs.

C.3.7.1 SUBTASK 1 - OPERATIONS, MAINTENANCE AND SUSTAINMENT

The contractor shall:

- a. Obtain, install, configure, checkout and maintain equipment, for Processing Exploitation & Dissemination (PED), battlefield management infrastructure, decision support software, sensors and other related capabilities as required in the technical instruction

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(Deliverable 4.7.1: Operations and Maintenance Plan, Deliverable 4.7.4 Spares Support Plan, Deliverable 4.7.5: Packaging, Handling, Storage and Transportation Plan).

- b. Support sensor storage and provide maintenance and logistics processing for non-deployable systems.
- c. Provide integration management so that software updates on one system will be updated throughout all affected systems.
- d. The contractor shall perform both scheduled and unscheduled maintenance. The Contractor will provide all parts, labor, and expertise necessary to complete required maintenance tasks. Maintenance down-time will be coordinated between the Contractor PM and Contractor. The Contractor shall provide a timetable for scheduled maintenance and an estimated completion time for unscheduled maintenance

C.3.7.2 SUBTASK 2 - LOGISTICS MANAGEMENT/COMMAND INTERFACE

The contractor shall provide a logistics management team that includes a Project Manager, as well as LH, POL, Air Lift Operations, and Logistics Subject Matter Experts (SMEs).

The contractor shall provide quality assurance and review all RW and FW CONOPS, and shall disseminate RW and FW CONOPs to requisite USG aviation planners.

The contractor shall develop and implement a commercial quality control plan to ensure safe and reliable transportation in accordance with applicable international and host nation standards. Operators are responsible for amending or supplementing their quality programs to assure management oversight in austere locations.

C.3.7.3 SUBTASK 3 - LOGISTICS INTEGRATION

The contractor shall liaise with USG leaders and other key PNF and Interagency persons to optimize the overall mission. This shall be accomplished by daily contact with designated key persons in accordance with USG and stakeholder guidance.

The contractor shall assess and manage all operational, transport, logistics, dedicated, mission critical infrastructure (e.g., logistics enabling structures, shelters-in-place, POL distribution/support) and activities to include forecasting, planning, marshalling, procuring, organizing cargo, loading/offloading cargo, accountability, record keeping, reporting, communicating, storage, housing, work site, office space, and disseminating.

The contractor shall provide Federal Aviation Administration (FAA) approved FW airdrop services that consist of all classes of supplies.

C.3.7.4 SUBTASK 4 - INFRASTRUCTURE AND LIFE SUPPORT SUSTAINMENT

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The contractor shall build new and improve upon existing facilities and infrastructure projects when required for mission satisfaction (e.g., logistics enabling structures, shelters-in-place, POL distribution/support).

The contractor shall perform both scheduled and unscheduled maintenance on buildings and infrastructure projects when required for mission satisfaction.

The contractor will provide parts, labor, and expertise necessary to complete required tasks.

The contractor shall provide a timetable for scheduled maintenance and an estimated completion time for unscheduled maintenance.

C.4. – Contemplated Lines Of Effort See attachment J2

Currently contemplated Lines of Effort comprise:

1. Airborne Field Testing & Operations
 - a. Manned ISR – HOA, et al
 - b. Unmanned ISR
 - c. MEDEVAC/CASEVAC
 - d. FW & RW Logistics Support to PNF(s)
2. Terrestrial Field Testing & Operations
 - a. ISR for Maritime Domain Awareness
 - b. Line Haul Support to PNF(s)
3. GEOINT Analysis & Product Generation
 - a. GEOINT Evaluation of Central Africa
4. ISR System Research & Development
 - a. Next-Generation LIDAR Development for UAS
5. Special Operations Mission Support
 - a. Special TTPs Development
6. Cyber, Open-Source Intelligence (OSINT), and Publically-Available Information (PAI) Support
 - a. High Value Target Profile Development

C.5. Technical Direction Letters (TDLs)

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The Government (via the Contracting Officer) will issue TDLs to provide technical direction or clarification concerning details of a specific Line of Effort. See **J12 – TDL Procedure**. These TDLs will specify a level of effort required for a stated time period. Ceilings may (or may not) be established for one or more of the following:

- i. Performance parameters
- ii. Labor hours
- iii. Travel
- iv. Direct Materials, and/or
- v. Other Direct Costs

For each TDL, as applicable, the Government may establish a fixed fee; that fixed fee will be a prorated portion of the total fixed fee for the applicable Line of Effort (which was established at award).